

# Winners and Losers: Expansion of Insurance Coverage in Russia in the 1990s

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Among the proudest boasts of the Soviet Union was its guarantee of equal access to health care. Although the system failed to live up to this aspiration, it succeeded in protecting the country's population from impoverishment due to ill health by providing no-cost care at the point of delivery. Yet, as early as the mid-1960s, pressures had begun to surface. The demands of the military-industrial complex diverted resources from the social, or "nonproductive," sectors. By the 1980s, the Soviet Union's lag behind health systems in the West was apparent.<sup>1</sup>

The country's health system could not remain immune to the circumstances confronting the newly independent Russian Federation. Although Soviet health care expenditures had decreased slowly since the 1960s, the decline became precipitous in the 1990s after the establishment of the Russian Federation, with expenditures falling by one third between 1991 and 1998.<sup>2</sup>

Fundamental structural reform was seen as inevitable, and in 1993 the Soviet general revenue system was replaced by a system involving compulsory medical insurance coverage supplemented by limited voluntary coverage. The legislation comprised a package of interrelated laws and regulations enacted between March and December 1993.<sup>3</sup> The compulsory insurance component was intended to cover the entire Russian population, providing a wide-ranging package of care. The new system was seen as more transparent and efficient than the existing one,<sup>4</sup> raising more funds earmarked for health care<sup>1,5</sup> while upholding solidarity and universal access.

Funding changes were to be accompanied by changes in health care delivery, there was to be competition between providers, and primary care provision was to be enhanced<sup>6,7</sup>; all of these elements were expected to increase responsiveness to the needs of patients. Employers would contribute funds for

**Objectives.** This study sought to describe the evolution of the Russian compulsory health insurance system and to identify factors associated with noncoverage.

**Methods.** Data from successive waves of the Russian Longitudinal Monitoring Survey (1992–2000) were analyzed.

**Results.** Insurance coverage grew rapidly throughout the 1990s, although 11.8% of the country's citizens were still uninsured by 2000. Coverage initiation rates were greater at first among citizens who were better off, but this gap closed over the study period. Among individuals of working age, coverage rates diminished with age and were lower for the unemployed, for the self-employed, and for those residing outside Moscow or St. Petersburg.

**Conclusions.** The growth of insurance coverage in Russia slowed toward the end of the 1990s, and gaps remain. Achievement of universal coverage will require new, targeted policies. (*Am J Public Health.* 2003;93:2124–2130)

those in their employment, with 3.6% of payroll costs paid to territorial (regional) health insurance funds and 0.2% paid to a federal fund. Contributions for those not working would be paid from regional or municipal government budgets.

In each region, funds were to be collected through an autonomous territorial insurance fund, loosely accountable to the regional government, that would then transfer them to competing private health insurance companies with a weighted capitation formula.<sup>6</sup> The federal fund, with its 0.2% allocation of payroll costs and federal budgetary transfers, would remain responsible for covering certain federal programs (e.g., maternal services) and medicines (e.g., drugs used to treat tuberculosis and cancer), for regulating territorial funds, and for funding regional authorities, especially psychiatric and maternal facilities.<sup>8</sup>

The reality is different. The funds raised failed to cover costs,<sup>2</sup> and few of the expected benefits materialized. The reasons for these shortcomings are still debated. Some attribute the problems to a preoccupation with raising resources rather than determining methods of distributing them, leaving perverse incentives and bureaucratic obstacles in place.<sup>5,9</sup> Others note problems with the initial implementation, citing inadequate funding, unclear accountability, and limited managerial skills on the part of the administrators involved.<sup>10</sup>

However, the ultimate problem was the failure to raise adequate funding. Most financing still originated from regional and municipal budgets, with only 30% to 35% of support deriving from territorial insurance funds.<sup>7,8</sup> New resources replaced rather than supplemented existing funding,<sup>10</sup> and regional governments faced a shrinking tax base.<sup>11</sup> Employer compliance rates were generally unsatisfactory and local authorities often delayed contributions for the nonworking population.<sup>5</sup> By 1998, public health expenditures had shrunk to 2.9% of the country's much reduced gross domestic product, covering only 75% of estimated costs.<sup>2</sup>

Simultaneously, health care delivery reform slowed and drug prices grew.<sup>2,7</sup> Intended competition among purchasers (insurance funds or companies) and among providers failed to materialize because of local monopolies. The intended diversity in terms of choices of insurers was limited as a result of group arrangements made by employers, with insurers offering only a narrow selection of providers.<sup>12</sup>

## REGIONAL DIVERSITY

Implementation of the compulsory insurance system took many forms in different regions, in terms of amount of funds and coverage of health conditions and population

groups. Part of this diversity reflected a lack of legislative clarity.<sup>10</sup> Some commentators have argued that regional authorities assumed regulatory responsibilities before adequate institutional capacity and administrative and financial mechanisms were in place.<sup>13</sup> Simultaneously, access to highly specialized care was reduced as central funding for it fell and referral channels broke down.<sup>5,8</sup> Although individuals with health insurance coverage are legally entitled to receive care anywhere in Russia,<sup>8</sup> in reality the territorial funding system lacked the administrative capacity to make this possible.

A further problem is the complexity of the various federal, regional, and municipal financial flows, creating conflicting incentives exacerbated by a lack of clarity about allocation rules and the scope that has been created for opportunism by politicians.<sup>2,5</sup> The roles and responsibilities of federal and regional bodies are poorly defined, and financial flows between different levels of government and the compulsory health insurance system are loosely regulated, with significant regional disparities.

Thus, the shift from a tightly controlled, centralized system to one that is highly fragmented, with loosely coordinated administration at the federal and regional levels, has threatened the population's access to care, the fiscal stability of the system, and the potential to implement reform.<sup>13</sup> The role of the state in terms of financial backing of essential care services has been undermined.<sup>14</sup>

## ACCESS TO CARE: HOW HAS THE POPULATION COPED?

Implementation of the compulsory insurance system has clearly been problematic, but how has it affected the Russian population? The commitment to a comprehensive, universal coverage system has not been matched by expenditures, with cost escalation and continuing underfunding resulting in growth of out-of-pocket payments.<sup>2,10</sup> A survey conducted in 1998 revealed that 16% of household budgets were allocated to health care, with the burden falling disproportionately on the poor. Respondents viewed the high costs of health care as impeding access to essential services; 36% reported having forgone medical tests,

and 50% reported not purchasing drugs recommended by a physician.<sup>15</sup>

The needs of the Russian population have also changed. The transition to the new economic system has created long-term impoverishment among significant numbers of people, particularly internal and foreign migrants, ex-prisoners, and those who are not registered with either the civic authorities or health insurance providers. A particular challenge is posed by the estimated 4 million people (of a total population of 145 million) classified as homeless. Most of these individuals reside in temporary accommodations and have no registered address, so they cannot be issued compulsory medical insurance policies, nor can they obtain access to other state services.

As mentioned, although all Russian citizens have the right to emergency treatment anywhere in Russia, regardless of their insurance status and registration, this policy has not been enforced, resulting in significant challenges in terms of access to care. Overall, the country's implementation of universal health insurance coverage has been extremely problematic. It might be expected that the transition to a universal insurance system has resulted in coverage discrepancies in terms of both geography and the socioeconomic characteristics of those who are insured. However, no valid information is available regarding either the process of change or the current state of the system. In the present study, we sought to shed some light on these issues, tracing the spread of insurance coverage across Russian society and attempting to determine who remains without insurance.

## METHODS

We used data from the Russian Longitudinal Monitoring Survey, initiated in 1992. This survey has involved 9 rounds; our analysis covered rounds 2 through 9. Details of the conduct of the survey are available on the survey's home page (<http://www.cpc.unc.edu/rhms>). In brief, the first phase (rounds 1–4) involved 3-stage stratified sampling. In stage 1, all 2335 Russian districts (*raions*) were stratified according to a range of sociodemographic and geographic criteria. In each *raion*, 20 primary sampling units were selected via

a probability-proportional-to-size (PPS) strategy. In stage 2, voting districts within these *raions* were ordered according to size, and 10 voting districts were selected in each *raion* via PPS sampling.

In stage 3, 36 households were selected within each secondary sampling unit. A *household* was defined as a "group of people living together and sharing income and expenditures," though the existence of single addresses comprising several households was noted (e.g., communal apartments). This process yielded 7200 households. Questions were asked of all adults living in a given household. The average sample size in round 1 was 15 441, with an average of 93% of adults in participating households responding. The same addresses were visited in each round.

Phase 2 (rounds 5–9) involved the use of a slightly different approach. A list of 2029 consolidated *raions* formed primary sampling units allocated into 38 strata based on geographic characteristics, level of urbanization, and ethnicity. A few areas were excluded because they were either extremely remote or involved in the Chechen war. *Raions* in Moscow and St. Petersburg were included explicitly, and the remaining *raions* were allocated to 35 equally sized strata, with 1 *raion* selected from each stratum via PPS sampling.

In the next stage, approximately 108 households were selected from each *raion*. However, to allow for the anticipated higher response rates in urban areas, each *raion* was divided into urban and rural substrata, with the target sample size allocated proportionately to each. In rural areas, villages formed secondary sampling units and were ordered by size and (when relevant) ethnic composition; 1 village for each set of 10 households allocated to the rural substratum was selected through PPS.

In urban areas, sampling units were voting districts or residential postal zones. These units were originally designed to be roughly equal in population size; thus, for each 10 households required in the sample, 1 was selected systematically without the use of PPS. A list of urban households in each secondary sampling unit was then compiled, from which the 10 households required were drawn systematically. The average sample size in phase 2 was 10 329, with 97% of those in participating households responding.

According to the 1989 census, the samples obtained in the 2 phases were closely representative of the population of Russia (other than members of the armed forces and those in institutional care) in terms of age, gender, and other characteristics. The overall response rate was relatively high: more than 80% throughout the 2 phases. The questionnaire was administered in Russian, and substitution of respondents was not permitted.

Each round contained a set of questions regarding health status, insurance status, and health care use. Only round 9 (which took place in 2000) distinguished between compulsory and voluntary insurance coverage, although earlier rounds asked about source of coverage. In 2000, only 1.9% ( $n=166$ ) of those who answered this question reported having voluntary insurance, most using it as a supplement to compulsory insurance. Because of the low number of individuals who had only voluntary insurance coverage, the analyses reported here do not distinguish between compulsory and voluntary insurance (although, by virtue of the timing of the insurance legislation, those reporting coverage in the first round must have had voluntary insurance).

Trends in insurance coverage were plotted over time in relation to age, gender, income, and education. We examined the characteristics of individuals with and without insurance coverage in 2000 in more detail using multivariate analyses. Those over and those under retirement age were considered separately. Among those of retirement age, coverage was examined according to age group and marital status. Among those still in the workforce, additional features related to employment, place of birth (a proxy aimed to capture migration), education level, nationality, and expenditures were examined.

In our analyses, we used household expenditures rather than incomes because in many parts of Russia (to varying degrees) salaries were paid in arrears, which meant that any single snapshot in time was likely to be misleading. We adjusted total household expenditures ( $E$ ) for household size ( $S$ ) using the formula

$$1) \quad \text{Eadj} = E/S^{0.73}.$$

We examined employment status and, among individuals who were employed, we

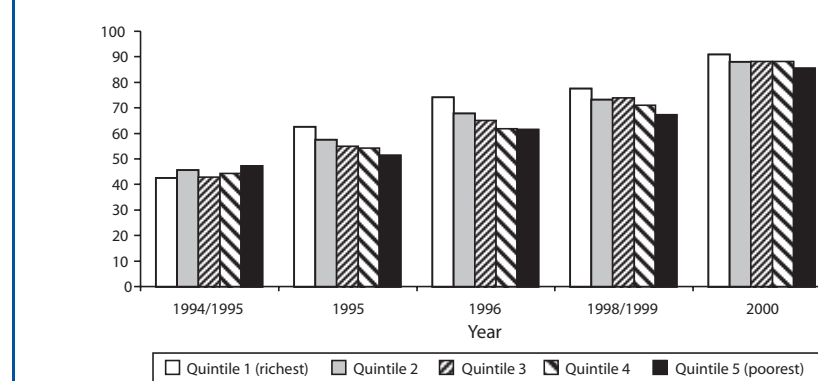


FIGURE 1—Trends in insurance coverage, by expenditure quintile: Russia, 1992–2000.

assessed whether or not they were self-employed. We also examined characteristics of employers, including number of employees, type of ownership, and several factors indicating a company's financial status (e.g., whether employees are owed pay or being paid in goods rather than money).

It should be noted that in Russia where insurance coverage is individualized unlike in many Western European countries; nonworking dependents are insured by virtue of the coverage of the working members of their household. Thus, in theory, nonworking partners should be covered by contributions made on their behalf by local governments; however, contribution levels have not been defined and seem to be highly variable. To complicate matters further, in a few areas individual employers have extended voluntary insurance coverage to families.

## RESULTS

### Trends in Insurance Coverage in the 1990s

Between 1992 and 2000, insurance coverage rates expanded dramatically, from 3% to 88%. The annual rate of growth was fastest in the period before 1995. At least in terms of broad sociodemographic characteristics, nearly all groups seem to have benefited at a broadly similar rate. Although coverage initiation rates were higher among the wealthier segment of the population early on, a more equal distribution was observed in the later years of the study period (Figure 1). The exception is that employed individuals have consistently been more likely than unemployed individuals to be covered (Figure 2).

The contribution of self-coverage fell (from 26% in 1992–1993 to 5% in 1998–1999)

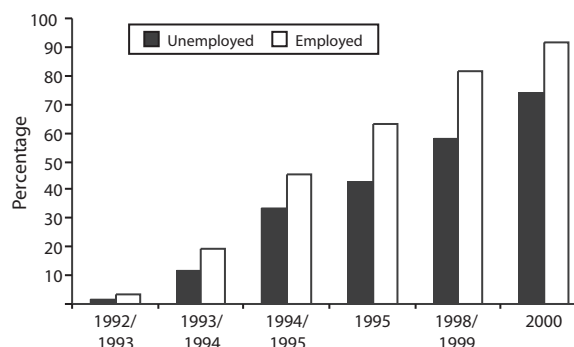


FIGURE 2—Trends in insurance coverage among people of working age, by employment status: Russia, 1992–2000.

TABLE 1—Correlates With Insurance: Russia, 2000

	Insured, No. (%)			
	Individuals of Working Age (18–59 y)		Individuals Above Working Age (≥ 60 y)	
	Male	Female	Male	Female
Age group, y				
20–29	783 (81.4)	912 (85.7)	... (...)	... (...)
30–39	695 (79.3)	752 (88.7)	... (...)	... (...)
40–49	734 (83.2)	932 (90.3)	... (...)	... (...)
50–59	422 (88.4)	588 (91.8)	... (...)	... (...)
60–64	... (...)	... (...)	262 (94.7)	411 (93.4)
65–69	... (...)	... (...)	172 (93.6)	312 (93.9)
70–74	... (...)	... (...)	176 (94.9)	317 (93.1)
75–79	... (...)	... (...)	57 (96.5)	196 (91.3)
≥ 80	... (...)	... (...)	38 (92.1)	160 (88.1)
Marital status				
Single	438 (77.4)	412 (88.8)	7 (100)	37 (94.6)
Married legally	1830 (85.7)	2008 (89.1)	529 (94.5)	475 (93.9)
Cohabiting	275 (76.7)	302 (85.4)	42 (95.2)	45 (88.9)
Divorced	136 (66.9)	344 (91.3)	27 (81.5)	92 (94.6)
Widowed	18 (83.3)	203 (91.6)	99 (97.0)	746 (91.6)
Region				
Moscow–St.Petersburg	118 (94.9)	177 (97.2)	46 (97.8)	86 (98.8)
North–Northwest	196 (91.8)	243 (93.4)	36 (100.0)	79 (100.0)
Central–Central Black Earth	494 (78.3)	613 (87.6)	153 (94.8)	326 (90.8)
Volga–Vaytski–Volga Basin	496 (80.4)	600 (88.5)	155 (87.7)	269 (82.9)
North Caucasian	400 (80.5)	457 (87.3)	106 (96.2)	194 (95.4)
Ural	418 (86.8)	502 (92.8)	77 (96.1)	187 (95.7)
Western Siberia	288 (73.3)	342 (86.0)	67 (97.0)	134 (94.0)
Eastern Siberia–Far East	291 (87.3)	337 (85.8)	65 (96.9)	121 (98.3)
Born elsewhere				
No	1352 (82.0)	1486 (90.1)	... (...)	... (...)
Yes	1349 (83.0)	1785 (88.3)	... (...)	... (...)
Education, y				
Less than 9	726 (82.2)	683 (88.0)	... (...)	... (...)
9 or more	1975 (82.6)	2587 (89.4)	... (...)	... (...)
Nationality				
Russian	2263 (81.9)	2755 (89.0)	... (...)	... (...)
Other	438 (85.4)	516 (89.5)	... (...)	... (...)
Expenditure quintile				
1 (richest)	580 (87.4)	682 (91.9)	... (...)	... (...)
2	556 (82.9)	635 (88.7)	... (...)	... (...)
3	518 (82.2)	620 (90.5)	... (...)	... (...)
4	477 (81.8)	581 (88.0)	... (...)	... (...)
5 (poorest)	480 (76.0)	573 (86.2)	... (...)	... (...)
Employed				
Yes	1979 (88.5)	2194 (94.2)	... (...)	... (...)
No	721 (66.0)	1077 (78.7)	... (...)	... (...)
Self-employed				
Yes	178 (68.0)	140 (80.0)	... (...)	... (...)
No	1806 (90.5)	2052 (95.2)	... (...)	... (...)

Continued

as the scope of state- and enterprise-based insurance grew. Notably, women were more likely to have state insurance coverage and less likely to be covered by their employers, presumably reflecting a higher level of unemployment among women and their greater likelihood of being employed in short-term or informal occupations.

### Who Is Still Uninsured?

As of 2000, 11.8% of respondents remained without insurance, even though the system is intended to provide universal coverage. More than 90% of those of retirement age had insurance coverage (Table 1). Slight declines in coverage were observed with increasing age; however, even in the oldest age group, 88% of women and 92% of men were covered. There was no obvious association between coverage and marital status. The apparently low rate of coverage among divorced men may have been a reflection of the relatively small size of this group.

Among those of working age, individual characteristics appeared to have little effect on insurance coverage, except that there was a tendency for coverage rates to rise with increasing age and with increasing financial resources (as judged by household expenditures) (Table 1). The apparently low level of insurance coverage among divorced men in this group might be explained in part by the high percentage of such men who were unemployed (44%); the coverage rate among divorced men who were employed was 84%.

In the analysis of the working age group, the major determinants of coverage were employment status, especially among men, and region of residence. Lack of employment and self-employment were both associated with substantially lower rates of coverage, and lower rates were observed outside the 2 major cities. Being in a managerial position had no effect on coverage, but those without formal employment contracts were substantially less likely to be covered. In addition, rates among men who were employed in companies with fewer than 50 workers were lower.

Coverage rates appeared to be slightly higher among employees of foreign-owned enterprises, and rates were lowest among employees of companies owned privately by



TABLE 1—Continued

Employment status				
Subordinates				
Yes	1529 (88.1)	1752 (93.8)	... (...)	... (...)
No	451 (89.8)	441 (95.7)	... (...)	... (...)
Registered contract				
No	68 (61.8)	57 (68.4)	... (...)	... (...)
Yes	1731 (91.6)	1992 (96.0)	... (...)	... (...)
Employer characteristics				
Size of employer				
Less than 10 employees	113 (83.2)	177 (88.7)	... (...)	... (...)
10–24 employees	166 (83.7)	217 (94.5)	... (...)	... (...)
25–49 employees	141 (86.5)	236 (96.6)	... (...)	... (...)
50–99 employees	146 (92.5)	253 (96.8)	... (...)	... (...)
≥ 100 employees	730 (93.7)	714 (96.6)	... (...)	... (...)
Type of ownership				
State	1155 (92.7)	1517 (97.0)	... (...)	... (...)
Foreign	92 (96.7)	71 (95.8)	... (...)	... (...)
Private Russian	722 (89.5)	583 (92.5)	... (...)	... (...)
Owed money				
No	1181 (90.6)	1511 (94.8)	... (...)	... (...)
Yes	616 (90.6)	536 (96.1)	... (...)	... (...)
Unpaid leave in past year				
No	1745 (90.9)	1973 (95.0)	... (...)	... (...)
Yes	58 (81.0)	72 (98.6)	... (...)	... (...)
Paid in goods				
No	1600 (90.3)	1898 (95.0)	... (...)	... (...)
Yes	203 (92.6)	152 (96.7)	... (...)	... (...)
Total	2701 (82.5)	3271 (89.1)	705 (94.5)	1396 (92.6)

Russians; however, Russian-owned enterprises also tended to be smaller than other enterprises (13.2% and 8.4%, respectively, having fewer than 10 employees). The company's economic situation had no obvious effect on coverage. We also examined several other factors, including possible coverage rate discrepancies among self-employed farmers or those working on collective farms, but found no differences.

Clearly, many of the characteristics described here are correlated, so it was necessary to undertake further multivariate analyses. Given that, by 2000, insurance coverage was the norm among people of working age, the main policy question is the following: What factors, if any, were significantly associated with the risk of *not* being insured? Separate logistic regression models were run for men and women of working age. All of the variables included in Table 2 were entered in

a stepwise regression. Only those variables found to be significant are described here.

Although both age and marital status were significant correlates of insurance status among men, the confidence intervals showed that none of the individual categories were significantly different from the reference category. Interestingly, individuals whose nationality was other than Russian had reduced odds, relative to Russian nationals, of not being insured. As suggested in the univariate analyses, having a registered employment contract significantly reduced the likelihood of not being insured; people with no contract were more than 5 times as likely to be uninsured.

The most striking finding, however, was the strong association involving region of residence. Men living outside the 2 major cities of Moscow and St. Petersburg were at a heightened risk of being uninsured, and those living

in western Siberia were most likely to be uninsured. Similar regional differentials were found among women of working age, showing that the earlier findings of geographical variations in coverage could not be explained by identifiable sociodemographic differences.

## DISCUSSION

The Russian Longitudinal Monitoring Survey is the most extensive source of data on social trends in Russia in the 1990s. However, the survey does involve some limitations. In the early rounds, there was probably a degree of misunderstanding of the concept of health insurance among respondents, and the survey questions did not make it possible to differentiate, with certainty, the different forms of coverage (although this situation reflected to some extent the confusion inherent in a system in rapid transition). In addition, although the survey strives to ensure representation of the entire Russian population, it almost certainly fails to reach the most marginalized sections of society. Thus, the coverage rates reported here probably represent overestimates, and it is likely that we failed to capture the full spectrum of characteristics of the uninsured population.

Notwithstanding these limitations, our analysis demonstrates that Russia made significant progress in expanding insurance coverage as it reformed its health financing system. However, significant weaknesses remain in regard to the depth, breadth, and geographical spread of coverage. As a result of factors such as weak tax collection policies and wage arrears, insurance funds have failed to collect what they need,<sup>16</sup> leading to chronic underfunding of services. Salaries go unpaid, maintenance and investment do not take place, and availability of supplies is erratic. As a consequence, those with coverage still face queues and poor-quality services. Also, a significant percentage of the population remains uninsured, and the rate of expansion of coverage has slowed.

Insurance coverage status in Russia is largely a function of geographical location and employment status. An optimistic prognosis is that the currently uncovered group will simply be absorbed into the insurance system over time, but there are concerns that this

**TABLE 2—Odds Ratios for Not Having Insurance Coverage Among Individuals Aged 20–59 Years: Russia, 2000**

	Odds Ratio (95% Confidence Interval)	
	Male	Female
Region*		
Moscow–St. Petersburg	1.00	1.00
North–Northwest	1.88 (0.68, 5.18)	3.05 (1.06, 8.73)
Central–Central Black Earth	5.93 (2.46, 14.32)	6.21 (2.41, 15.98)
Volga–Vaytski–Volga Basin	5.23 (2.16, 12.67)	5.18 (2.01, 13.37)
North Caucasian	4.41 (1.79, 10.86)	4.22 (1.62, 10.96)
Ural	3.38 (1.37, 8.33)	3.13 (1.18, 8.30)
Western Siberia	8.29 (3.37, 20.37)	6.59 (2.51, 17.33)
Eastern Siberia–Far East	3.14 (1.25, 7.91)	5.96 (2.26, 15.70)
Age group, y*		
20–29	1.00	1.00
30–39	1.29 (0.95, 1.75)	1.03 (0.75, 1.40)
40–49	1.10 (0.79, 1.51)	0.94 (0.69, 1.28)
50–59	0.64 (0.43, 0.96)	0.52 (0.36, 0.74)
Marital status*		
Single	1.00	...
Legally married	0.85 (0.61, 1.20)	...
Cohabiting	1.37 (0.89, 2.09)	...
Divorced	1.66 (1.01, 2.74)	...
Widowed	0.78 (0.20, 3.12)	...
Nationality*		
Russian	1.00	...
Other	0.60 (0.43, 0.83)	...
Company size*		
Less than 10 employees	1.00	...
10–49 employees	1.28 (0.67, 2.43)	...
≥ 50 employees	0.58 (0.31, 1.10)	...
Not working/not applicable	0.88 (0.46, 1.68)	...
Registered contract*		
No	1.00	1.00
Yes	0.18 (0.10, 0.33)	0.15 (0.08, 0.29)
Not working/not applicable	0.98 (0.50, 1.92)	0.57 (0.21, 1.56)
Enterprise government owned*		
No	1.00	...
Yes	0.36 (0.22, 0.57)	...
Not working/not applicable	0.92 (0.39, 2.20)	...
Cox R <sup>2</sup>	0.139	0.1

Note. Only significant variables are shown. Data were derived from an analysis of the 2000 Russian Longitudinal Monitoring Survey, round 9.

\* $P < .01$ ; \*\* $P < .001$ .

tem was premature in the absence of a functioning market economy and its accompanying legal, financial, and regulatory infrastructure.<sup>1,16</sup> However, the process was inextricably linked with wider political changes, including an explicit rejection of the former Soviet way of doing things. Supporters of rapid change can argue that coverage initiation rates did increase rapidly in the early 1990s. In addition, compulsory medical insurance should not be seen as “a radical departure from that of socialized medicine,”<sup>1(p205)</sup> given that its goal is to fund universal care.<sup>1</sup> Critics can also point to the relatively small contribution that compulsory insurance has made to overall health care expenditures,<sup>16</sup> but again this criticism can be countered by the argument that, in the absence of such compulsory coverage, the decline in expenditures would have even been greater.

Our findings invite comparisons with the other major industrialized country without universal health care coverage, the United States. The characteristics of individuals without insurance coverage are similar in the United States and Russia, with the highest noncoverage rates observed among young adults, self-employed individuals, employees of small companies, and those employed in temporary work.<sup>18</sup> One difference, however, is that the majority of uninsured individuals in the United States are above the poverty line (although a large portion are dependent on assistance at times), whereas in Russia, poverty status is less significant. Clearly, there are lessons that can be learned from the United States regarding the risks of adverse health outcomes and further impoverishment among the uninsured population.

Another essential difference between Russia and the United States is that the former at least aspires to achieve universal coverage, supporting the optimistic scenario that coverage rates will continue to expand as the system matures. However, one cannot exclude the more pessimistic interpretation that the Russian system may, by design, always exclude a portion of the population. Further research arising from the current study will focus on providing an understanding of the impact of being insured on individuals' access to care, impoverishment, and health outcomes. ■

may not occur, for several possible reasons. First, there is a resilient core of marginalized, hard-to-reach groups, including migrants and temporary and informal workers. Second, as a result of the dynamic nature of poverty in

Russia,<sup>17</sup> a significant pool of individuals without secure employment will continue to lack coverage.

Some commentators have argued that the introduction of Russia's health insurance sys-

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## Contributors

All of the authors were involved in identifying the idea for the article and the main directions for analysis and interpretation. D.C. Balabanova had primary responsibility for conducting the analyses and writing the first draft of the article. J. Falkingham was involved in key stages of analysis and text revision. M. McKee assisted with the data analysis and revised the first draft of the article.

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## Human Participant Protection

No protocol approval was needed for this study.

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